

Application No.: 10/725,862

Docket No.: TOWK-015RCE

REMARKS

Applicants amend claim 1. No new matter is added. Support for the amendment can be found at page 3, lines 16-19. Upon entry of this amendment, claims 1-9 are pending, of which claim 1 is independent. Applicants respectfully submit that the pending claims define over the art of record.

Claim Rejections under 35 U.S.C. § 103

Claims 1-3 and 8-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Japanese Patent Application Publication No. JP 11-062631 to Sano et al. (hereafter "Sano") in view of U.S. Patent No. 5,522,416 to Farrell et al. (hereafter "Farrell").

Claims 4-7 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Sano reference, in view of the Farrell reference, and further in view of Canadian Patent No. 2,261,243 to Dell et al. (hereafter "Dell").

Applicants respectfully submit that the Sano, Farrell and Dell references, alone or in combination, do not teach or suggest that *when the non-contact type motor is de-energized, the opening is fully open for discharging water from the fuel cells without consuming electric power*, as recited in amended claim 1.

The pressure regulator of the present invention includes a valve that is fully open when de-energized so as to discharge air containing water to the outside environment even when the fuel cell stack stops generating electric power. *See* Present Application Specification, page 14, line 26 – page 15, line 22. Since the valve is fully open when the fuel cell stack stops generating electric power, water is not retained in the fuel cell stack. Thus, air containing water can be discharged without consuming electric power.

The Sano reference merely teaches that the throttle shaft (2) is urged by the return spring (9) to make the valve (4) fully open for preventing backlash in the reduction gear mechanism (6). *See* paragraph [0020]. The Sano reference is silent about the valve being fully open when de-energized *for preventing water being retained in the fuel cell stack without consuming electric power*.

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The Farrell reference teaches a pneumatic pressure regulation system in which the pressure and flow fed to the receptacle is entirely controlled by electrical signals. See Col. 2, lines 35-38. According to the Farrell reference, the aperture connecting the pressure source to the receptacle has a variable size controlled solely by electrical signals fed to the motor adjusting the size of the aperture. See Col. 2, lines 38-44. The Farrell reference teaches a regulation system and is not directed to a valve body. Moreover, the Farrell reference does not teach or suggest that when the non-contact type motor is de-energized, the opening of the pressure regulator is fully open for discharging water from the fuel cells without consuming electric power, as recited in claim 1. Therefore, one of ordinary skill in the art would not be motivated to combine the teachings of the Farrell reference concerning a regulation system with the teachings of the Sano reference concerning a valve body to make a valve fully open when de-energized so as to discharge air containing water to the outside environment.

The Dell reference also fails to teach or suggest a valve being fully open when de-energized for preventing water from being retained in the fuel cell stack without consuming electric power. The Dell reference is merely used to show that a pressure regulator can be made of stainless steel and that the regulator has sealing members that radially form a seal with the pressure regulator so as to seal the regulator. Nonetheless, the Dell reference, in combination with the Sano and Farrell references, does not teach or suggest a valve being fully open when de-energized for preventing water being retained in the fuel cell stack without consuming electric power, as recited in amended claim 1.

In light of the arguments presented above, Applicants respectfully submit that claims 1-9 define over the Sano, Farrell and Dell references. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of claims 1-9 under 35 U.S.C. §103(a).

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CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. TOWK-015RCE. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. § 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

Dated: December 26, 2007

Respectfully submitted,

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